



Brunsing Associates, Inc.

January 30, 2006

Project No. 383

Mr. Dale Radford
Sonoma County Department of Health Services
475 Aviation Blvd, Suite 220
Santa Rosa, California 95403

Groundwater Monitoring Report
October 2005
100 Brown Street
Sebastopol, California

Dear Mr. Radford:

This report presents the results of groundwater monitoring performed at 100 Brown Street, Sebastopol, California (Plate 1) by Brunsing Associates, Inc. (BAI). The groundwater monitoring field activities were performed on October 12, 2005. Also enclosed are the results of sampling of extraction wells B-5 and B-6 on September 15, 2005, immediately prior to shutting the remediation system down. This report was prepared to fulfill the monitoring requirements of the Sonoma County Department of Health Services-Environmental Health Division (SCDHS-EHD).

SITE HISTORY

In December 1990, a 1,000-gallon underground storage tank (UST) used for gasoline was partially excavated from the former tire service facility. The tank was observed to extend underneath the onsite building and was therefore left in place and backfilled. Soil and groundwater samples were collected to evaluate if contamination resulting from the UST existed, by drilling soil boring B-1 and installing monitoring well MW-1 in February 1992 and August 1994, respectively.

In May 1995, four 1,000-gallon USTs were discovered at the site. Three of the tanks were subsequently rinsed, purged, and removed. The fourth tank was also observed to extend beneath the onsite building. After rinsing and purging, the

two tanks that partially extend under the building were filled with cement slurry and left in place.

In November 1996, BAI supervised the drilling of four Hydropunch borings (HP-1 through HP-4) to depths of 25 feet below ground surface (bgs), to further evaluate the extent of soil and groundwater contamination. The results of the site investigation were presented in BAI's report, "Soil and Groundwater Investigation, Wyatt Tire Service", dated December 23, 1996. The SCDHS-EHD stated that the results of the site investigation indicated that active remediation would be necessary, in correspondence dated January 7, 1997. In August 1998, BAI supervised the installation of two additional monitoring wells, MW-2 and MW-3, and the installation of five shallow borings, B-2 through B-6, of which borings B-3 through B-6 were converted to wells. The results of the additional site investigation were presented in BAI's report, "Soil & Groundwater Investigation and Soil Vapor Extraction Pilot Test Report", dated January 14, 1998.

A subsequent Feasibility Study for the site dated January 19, 1998 recommended soil vapor extraction (SVE) as the most cost-effective remedial action for the site. A Corrective Action Plan was submitted to the regulatory agencies on May 29, 1998 by BAI, which provided the treatment system design, in addition to a complete site history, and discussion of site geology and analytical data.

The first remedial treatment method used at the site was SVE via a thermal oxidizing system. The system was initially started up on April 14, 2000 but was effectively inactive due to mechanical difficulties until February 2001. The remedial system was then functional through May 29, 2001. The system was subsequently shut down because the volatile organic compounds (VOCs) concentrations were not high enough in the influent air stream to sustain operation of the thermal oxidizer, as detailed in BAI's letter to the Bay Area Air Quality Management District (BAAQMD), dated October 24, 2001.

BAI recommended replacement of the thermal oxidation unit with a carbon treatment system in an October 24, 2001 letter; the replacement system was approved by the SCDHS-EHD in their letter dated November 8, 2001. The remedial replacement system consists of a smaller regenerative blower and a carbon treatment system. The remediation system was re-started on August 8, 2002 and initially included two 400-pound carbon canisters. As discussed in



BAI's letter to the BAAQMD on September 12, 2002, the carbon capacity was increased to the current system, containing a 2,000 pound-carbon vessel and a 400-pound carbon vessel. The treatment system compound is located at the southern portion of the property adjacent to the building. BAI's report titled "Remediation Progress Report, August 2004 through December 2004", dated February 7, 2005 provides the most recent information of the remedial operations at the site.

In accordance with BAI's report, "Workplan Addendum to Deepen Well MW-1," dated September 18, 2002 and approved by the SCDHS-EHD in their letter dated September 27, 2002, BAI drilled and installed one 38-foot deep well, MW-4, on February 19, 2003. Soil samples collected from the borehole in well MW-4 contained petroleum hydrocarbons predominately at 10-feet below ground surface. The results of the well installation and January 2003 groundwater monitoring are presented in BAI's report "Well Installation and Groundwater Monitoring Report", dated April 18, 2003.

BAI's "Confirmation Soil Sampling Workplan", dated July 8, 2004 proposed that due to the low influent vapor and the dropping levels of groundwater at the site that soil confirmation drilling be performed to evaluate the effectiveness of the remediation system. The July 8, 2004 workplan also recommended sampling sparge well SP-1 instead of installation of an additional monitoring well at the site.

Five exploratory borings (CB-1 through CB-5) were drilled on September 24, 2004, as proposed in BAI's July 8, 2004 workplan. The highest residual soil concentrations reported during this investigation were reported in the soil samples collected from the intermediate clay layer, a five-foot thick layer of clayey material starting at approximately 7 to 10 feet bgs. The results of the site investigation were presented in BAI's report, "Confirmation Soil Sampling Report", dated November 22, 2004.

Plate 2 shows the locations of the tanks, soil borings and monitoring wells. Table 1 and Table 2 present the groundwater elevation data and groundwater analytical results, respectively. Table 3 presents the well construction details.



QUARTERLY GROUNDWATER MONITORING

Depths to groundwater were measured on October 12, 2005 in wells MW-1, MW-2, MW-4, and B-4 through B-8. Wells MW-3, B-3, and SP-1 were not measured because the wells were not accessible. Groundwater samples were collected from wells MW-4, B-6, and B-7 on October 12, 2005. Wells MW-1, MW-2, MW-3, SP-1, B-3, B-4, B-5, and B-8 were not sampled because there was insufficient water present or because the wells were inaccessible during field activities. The groundwater sampling protocol and field reports are included in Appendix A. The groundwater samples were analyzed by BACE Analytical and Field Services for TPH as gasoline, BTEX, petroleum oxygenates and lead scavengers, by EPA Test Method 8260. The groundwater analytical report for the samples is presented in Appendix B.

On September 15, 2005, groundwater samples were collected from vapor extraction wells B-5 and B-6, prior to shutting down the remediation system. The samples were collected from the remediation piping, and preserved as described in Appendix A. The groundwater samples were analyzed by BACE Analytical and Field Services for TPH as gasoline, BTEX, and Methyl tert-butyl ether (MTBE), by EPA Test Method 8260. The groundwater analytical report for the samples is presented in Appendix B.

RESULTS

Cumulative depths to groundwater and calculated groundwater elevations are presented in Table 1. The "deep" zone groundwater flow direction was not calculated because wells MW-1, MW-2, and MW-3 were dry or inaccessible. The calculated gradient and flow direction for the "perched" water-bearing zone, using data from wells B-5, B-6, and B-8 was 0.045 foot per foot and to the northeast.

TPH as gasoline was reported in the groundwater samples collected from wells B-5, B-6, B-7, and MW-4 at concentrations of ranging from 1.7 to 73 milligrams per liter (mg/l). Benzene concentrations ranging from 1.41 to 418 micrograms per liter ($\mu\text{g/l}$), and MTBE concentrations ranging from 93.4 to 1,130 $\mu\text{g/l}$ were also reported in the samples. Cumulative groundwater analytical results are presented in Table 2.



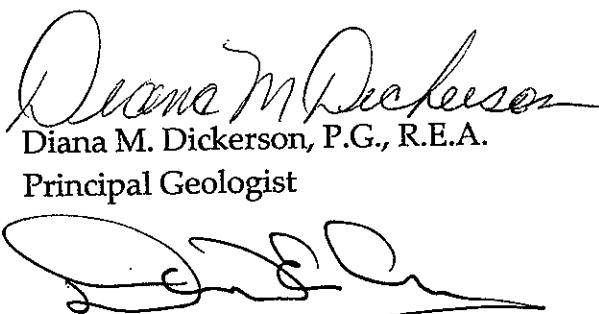
CONCLUSIONS AND RECOMMENDATIONS

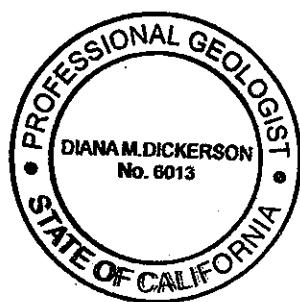
With the exception of MTBE, the highest concentrations were reported in the samples collected from well B-6 (Table 2). The groundwater sample from well B-5 appears to contain unusually high MTBE concentrations compared to the analytical data for the other wells. Comparison of the September 2005 B-6 concentrations to the October 2005 concentrations indicates that the petroleum hydrocarbon concentrations in the "perched" water-bearing zone increased after the remediation system was shut down. Insufficient water was present in well B-5 in October 2005 to collect a groundwater sample. Therefore, an evaluation of the effectiveness of the remediation system on the "perched" water-bearing zone cannot be made at this time.

The next groundwater monitoring event was performed in January 2006. A report presenting the results of the January 2006 groundwater sampling will be prepared after the analytical data are received and reviewed. BAI is currently preparing a site conceptual model. BAI recommends that the site conceptual model include the January 2006 data so that additional groundwater data for the "perched" water-bearing zone will be available.

If you have any questions regarding this report, please contact Diana Dickerson at (707) 838-3027.

Sincerely,


Diana M. Dickerson, P.G., R.E.A.
Principal Geologist




David E. Conley, P.G.
Senior Geologist

cc: Ms. Shirley Sarten
Mr. Michael Gest



List of Attachments

Table 1. Groundwater Elevation Data
Table 2. Groundwater Analytical Results
Table 3. Well Construction Details

Plate 1. Site Vicinity Map
Plate 2. Site Map
Plate 3. Groundwater Elevation Map, October 12, 2005

Appendix A. Monitoring Well Sampling Protocol and Field Reports
Appendix B. Analytical Laboratory Reports



TABLES



Table 1. Groundwater Elevation Data
 100 Brown Street
 Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	29-Aug-97	76.90	22.98	53.92	South Gradient = 0.002 ft./ft.
MW-2	29-Aug-97	76.05	22.13	53.92	
MW-3	29-Aug-97	76.61	22.63	53.98	
MW-1	3-Nov-97	76.90	24.95	51.95	Southeast Gradient = 0.007 ft./ft.
MW-2	3-Nov-97	76.05	24.38	51.67	
MW-3	3-Nov-97	76.61	24.59	52.02	
MW-1	15-Jan-98	76.90	22.77	54.13	South Gradient = 0.002 ft./ft.
MW-2	15-Jan-98	76.05	21.91	54.14	
MW-3	15-Jan-98	76.61	22.44	54.17	
MW-1	18-Mar-98	76.90	18.99	57.91	South Gradient = 0.002 ft./ft.
MW-2	18-Mar-98	76.05	18.13	57.92	
MW-3	18-Mar-98	76.61	18.65	57.96	
MW-1	13-Apr-98	76.90	18.30	58.60	South Gradient = 0.003 ft./ft.
MW-2	13-Apr-98	76.05	17.43	58.62	
MW-3	13-Apr-98	76.61	17.95	58.66	
MW-1	4-May-98	76.90	17.95	58.95	South Gradient = 0.002 ft./ft.
MW-2	4-May-98	76.05	17.09	58.96	
MW-3	4-May-98	76.61	17.60	59.01	
MW-1	16-Jun-98	76.90	17.45	59.45	South Gradient = 0.002 ft./ft.
MW-2	16-Jun-98	76.05	16.61	59.44	
MW-3	16-Jun-98	76.61	17.11	59.50	
MW-1	24-Jul-98	76.90	18.29	58.61	South Southeast Gradient = 0.001 ft./ft.
MW-2	24-Jul-98	76.05	17.46	58.59	
MW-3	24-Jul-98	76.61	17.97	58.64	
MW-1	5-Aug-98	76.90	18.55	58.35	South Gradient = 0.001 ft./ft.
MW-2	5-Aug-98	76.05	17.71	58.34	
MW-3	5-Aug-98	76.61	18.23	58.38	
MW-1	9-Sep-98	76.90	19.45	57.45	South Gradient = 0.002 ft./ft.
MW-2	9-Sep-98	76.05	18.62	57.43	
MW-3	9-Sep-98	76.61	19.11	57.50	
MW-1	8-Oct-98	76.90	20.02	56.88	South Gradient = 0.002 ft./ft.
MW-2	8-Oct-98	76.05	19.17	56.88	
MW-3	8-Oct-98	76.61	19.68	56.93	



Table 1. Groundwater Elevation Data

100 Brown Street
Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	3-Nov-98	76.90	20.18	56.72	South Gradient = 0.001 ft./ft.
MW-2	3-Nov-98	76.05	19.33	56.72	
MW-3	3-Nov-98	76.61	19.86	56.75	
MW-1	16-Apr-99	76.90	15.73	61.17	South Gradient = 0.002 ft./ft.
MW-2	16-Apr-99	76.05	14.87	61.18	
MW-3	16-Apr-99	76.61	15.40	61.21	
MW-1	13-Jul-99	76.90	19.13	57.77	South Southeast Gradient = 0.002 ft./ft.
MW-2	13-Jul-99	76.05	18.31	57.74	
MW-3	13-Jul-99	76.61	18.80	57.81	
MW-1	29-Oct-99	77.27	21.31	55.96	North Northwest Gradient = 0.015 ft./ft.
MW-2	29-Oct-99	76.05	20.47	55.58	
MW-3	29-Oct-99	75.94	20.33	55.61	
MW-1	5-Jan-00	77.27	20.98	56.29	North Gradient = 0.022 ft./ft.
MW-2	5-Jan-00	76.05	20.02	56.03	
MW-3	5-Jan-00	75.94	20.17	55.77	
MW-1	22-May-00	77.27	19.96	57.31	South Gradient = 0.002 ft./ft.
MW-2	22-May-00	76.05	18.73	57.32	
MW-3	22-May-00	75.94	18.58	57.36	
MW-1	7-Aug-00	77.27	22.06	55.21	North northwest Gradient = 0.006 ft./ft.
MW-2	7-Aug-00	76.05	20.68	55.37	
MW-3	7-Aug-00	75.94	20.84	55.10	
MW-1	8-Nov-00	77.27	24.00	53.27	South Gradient = 0.005 ft./ft.
MW-2	8-Nov-00	76.05	22.77	53.28	
MW-3	8-Nov-00	75.94	22.61	53.33	
MW-1	19-Feb-01	77.27	23.10	54.17	South Gradient = 0.006 ft./ft.
MW-2	19-Feb-01	76.05	21.89	54.16	
MW-3	19-Feb-01	75.94	21.62	54.32	
MW-1	8-May-01	77.27	22.28	54.99	South Southeast Gradient = 0.004 ft./ft.
MW-2	8-May-01	76.05	21.11	54.94	
MW-3	8-May-01	75.94	20.86	55.08	



Table 1. Groundwater Elevation Data

100 Brown Street
Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	27-Aug-01	77.27	dry	dry	--
MW-2	27-Aug-01	76.05	23.77	52.28	
MW-3	27-Aug-01	75.94	23.58	52.36	
MW-1	6-Dec-01	77.27	dry	dry	--
MW-2	6-Dec-01	76.05	25.23	50.82	
MW-3	6-Dec-01	75.94	25.09	50.85	
MW-1	15-Mar-02	77.27	dry	dry	--
MW-2	15-Mar-02	76.05	23.89	52.16	
MW-3	15-Mar-02	75.94	23.76	52.18	
MW-1	26-Apr-02	77.27	dry	dry	
MW-1	25-Jun-02	77.27	dry	dry	--
MW-2	25-Jun-02	76.05	25.10	50.95	
MW-3	25-Jun-02	75.94	24.96	50.98	
MW-1	12-Sep-02	77.27	dry	dry	--
MW-2	12-Sep-02	76.05	26.26	49.79	
MW-3	12-Sep-02	75.94	26.11	49.83	
MW-1	3-Oct-02	77.27	dry	dry	--
MW-2	3-Oct-02	76.05	26.60	49.45	
MW-3	3-Oct-02	75.94	26.43	49.51	
MW-1	28-Jan-03	77.27	dry	dry	--
MW-2	28-Jan-03	76.05	26.13	49.92	
MW-3	28-Jan-03	75.94	26.01	49.93	
MW-4	25-Feb-03	76.67	26.52	50.15	
MW-1	17-Apr-03	77.27	dry	dry	South Southeast Gradient = 0.006 ft./ft.
MW-2	17-Apr-03	76.05	25.66	50.39	
MW-3	17-Apr-03	75.94	25.38	50.56	
MW-4	17-Apr-03	76.67	26.31	50.36	
MW-1	28-Apr-03	77.27	dry	dry	South Southeast Gradient = 0.001 ft./ft.
MW-2	28-Apr-03	76.05	25.47	50.58	
MW-3	28-Apr-03	75.94	25.34	50.60	
MW-4	28-Apr-03	76.67	26.09	50.58	



Table 1. Groundwater Elevation Data

100 Brown Street
Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	7-Jul-03	77.27	dry	dry	South Southeast Gradient = 0.002 ft./ft.
MW-2	7-Jul-03	76.05	26.00	50.05	
MW-3	7-Jul-03	75.94	25.82	50.12	
MW-4	7-Jul-03	76.67	26.62	50.05	
MW-1	17-Oct-03	77.27	dry	dry	South Southeast Gradient = 0.003 ft./ft.
MW-2	17-Oct-03	76.05	28.23	47.82	
MW-3	17-Oct-03	75.94	27.94	48.00	
MW-4	17-Oct-03	76.67	28.84	47.83	
MW-1	16-Jan-04	77.27	dry	dry	--
MW-2	16-Jan-04	76.05	dry	dry	
MW-3	16-Jan-04	75.94	dry	dry	
MW-4	16-Jan-04	76.67	29.11	47.56	
MW-1	4-Apr-04	77.27	dry	dry	--
MW-2	4-Apr-04	76.05	dry	dry	
MW-3	4-Apr-04	75.94	dry	dry	
MW-4	4-Apr-04	76.67	28.16	48.51	
MW-1	12-Jul-04	77.27	NA	NA	--
MW-2	12-Jul-04	76.05	dry	dry	
MW-3	12-Jul-04	75.94	28.15	47.79	
MW-4	12-Jul-04	76.67	29.93	46.74	
SP-1	12-Jul-04	NS	30.09	NA	
MW-1	18-Oct-04	77.27	NA	NA	--
MW-2	18-Oct-04	76.05	dry	dry	
MW-3	18-Oct-04	75.94	dry	dry	
MW-4	18-Oct-04	76.67	31.50	45.17	
SP-1	18-Oct-04	NS	31.75	NA	



Table 1. Groundwater Elevation Data
 100 Brown Street
 Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	3-Jan-05	79.78	dry	dry	--
MW-2	3-Jan-05	78.57	dry	dry	
MW-3	3-Jan-05	78.45	dry	dry	
MW-4	3-Jan-05	79.18	31.87	47.31	
SP-1	3-Jan-05	79.66	32.11	47.55	
B-3	3-Jan-05	79.33	5.33	74.00	
B-4	3-Jan-05	79.08	dry	dry	
B-5	3-Jan-05	78.19	4.69	73.50	
B-6	3-Jan-05	78.96	4.91	74.05	
B-7	3-Jan-05	78.40	5.30	73.10	
B-8	3-Jan-05	78.85	3.89	74.96	
MW-1	10-May-05	79.78	dry	dry	Not Calculated for Wells MW-1, MW-2, MW-3 and MW-4
MW-2	10-May-05	78.57	dry	dry	
MW-3	10-May-05	78.45	dry	dry	
MW-4	10-May-05	79.18	30.31	48.87	
SP-1	10-May-05	79.66	NA	NA	
B-3	10-May-05	79.33	NA	NA	
B-4	10-May-05	79.08	dry	dry	
B-5	10-May-05	78.19	4.12	74.07	
B-6	10-May-05	78.96	4.62	74.34	
B-7	10-May-05	78.40	2.03	76.37	
B-8	10-May-05	78.85	2.44	76.41	



Table 1. Groundwater Elevation Data
 100 Brown Street
 Sebastopol, California

Well ID	Date	Top of Casing Elevation (ft., MSL)	Depth to Water (feet)	Groundwater Elevation (ft., MSL)	Groundwater Flow Direction and Gradient
MW-1	26-Jul-05	79.78	dry	dry	Not Calculated for Wells MW-1, MW-2, MW-3 and MW-4
MW-2	26-Jul-05	78.57	dry	dry	
MW-3	26-Jul-05	78.45	dry	dry	
MW-4	26-Jul-05	79.18	31.00	48.18	
SP-1	26-Jul-05	79.66	NA	NA	
B-3	26-Jul-05	79.33	NA	NA	
B-4	26-Jul-05	79.08	dry	dry	
B-5	26-Jul-05	78.19	4.71	73.48	
B-6	26-Jul-05	78.96	5.66	73.30	
B-7	26-Jul-05	78.40	4.12	74.28	
B-8	26-Jul-05	78.85	4.21	74.64	
MW-1	12-Oct-05	79.78	dry	dry	Not Calculated for Wells MW-1, MW-2, MW-3 and MW-4
MW-2	12-Oct-05	78.57	dry	dry	
MW-3	12-Oct-05	78.45	NA	NA	
MW-4	12-Oct-05	79.18	32.45	46.73	
SP-1	12-Oct-05	79.66	NA	NA	
B-3	12-Oct-05	79.33	NA	NA	
B-4	12-Oct-05	79.08	8.33	70.75	
B-5	12-Oct-05	78.19	6.80	71.39	
B-6	12-Oct-05	78.96	6.98	71.98	
B-7	12-Oct-05	78.40	5.50	72.90	
B-8	12-Oct-05	78.85	6.32	72.53	

Wells resurveyed by Phelps and Associates on November 8, 2000 after well heads modified for treatment system. Well MW-4 surveyed on April 9, 2003 by Ray Carlson and Associates.

All wells resurveyed by Ray Carlson and Associates on March 8, 2005.

MSL = Mean sea level

NS = not surveyed

-- = Not calculated because no water present in at least one well

NA = inaccessible or not applicable



Table 2. Groundwater Analytical Results

100 Brown Street
 Sebastopol, California

Well Number	Sampling Date	TPH as Gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Depth to Water (Feet TOC)
MW-1	2-Sep-94	4.8	440	1,100	200	1,100	NR	23.99
MW-1	1-Feb-95	3.8	150	120	37	840	NR	21.91
MW-1	3-May-95	26	2,000	3,800	660	6,500	NR	19.53
MW-1	29-Aug-97	ND	ND	1.2	ND	ND	16	22.98
MW-1	18-Mar-98	13	440	83	12	3,700	240	18.99
MW-1	16-Jun-98	8.4	510	340	110	1,800	300	17.45
MW-1	9-Sep-98	1.9	150	78	70	350	230	19.45
MW-1	16-Apr-99	20	750	170	310	5,500	370	15.73
MW-1	13-Jul-99	7.7	220	260	280	1,600	160	19.13
MW-1	29-Oct-99	NS	NS	NS	NS	NS	NS	21.31
MW-1	5-Jan-00	0.42	46	2.9	32	1.5	50	20.98
MW-1	22-May-00	0.27	0.6	1.7	ND	ND	260	19.96
MW-1	7-Aug-00	1.1	42	6.5	28	3.6	192 ^B	22.06
MW-1	8-Nov-00	ND	ND	ND	ND	ND	<2.0 ^A	24.00
MW-1	19-Feb-01	ND	ND	ND	ND	ND	23 ^C	23.10
MW-1	8-May-01	ND	ND	1.1	ND	2.2	ND ^A	22.28
MW-2	29-Aug-97	ND	ND	ND	ND	ND	30	22.13
MW-2	18-Mar-98	ND	ND	ND	ND	4.0	600	18.13
MW-2	16-Jun-98	ND	ND	ND	ND	ND	470	16.61
MW-2	9-Sep-98	1.3	ND	2.0	ND	2.2	1,200	18.62
MW-2	16-Apr-99	2.1	ND	3.3	ND	ND	2,000	14.87
MW-2	13-Jul-99	0.41	ND	12	ND	0.68	300	18.31
MW-2	29-Oct-99	1.7	13	29	18	50	19.1 ^A	20.47
MW-2	5-Jan-00	ND	ND	ND	ND	ND	60	20.02
MW-2	22-May-00	ND	ND	ND	ND	ND	180	18.73
MW-2	7-Aug-00	0.13	ND	14	ND	ND	30.2 ^A	20.68
MW-2	8-Nov-00	ND	ND	ND	ND	ND	5.5 ^A	22.77
MW-2	19-Feb-01	ND	ND	ND	ND	ND	1.1 ^A	21.89
MW-2	8-May-01	ND	ND	ND	ND	ND	ND ^A	21.11
MW-2	27-Aug-01	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 5.00 ^A	23.77
MW-2	6-Dec-01	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	25.23
MW-2	15-Mar-02	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	23.89
MW-2	25-Jun-02	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	1.53 ^A	25.10
MW-2	3-Oct-02	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	26.60
MW-2	28-Jan-03	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	26.13
MW-2	28-Apr-03	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	25.47
MW-2	7-Jul-03	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0 ^A	26.00



Table 2. Groundwater Analytical Results

100 Brown Street
Sebastopol, California

Well Number	Sampling Date	TPH as Gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Depth to Water (Feet TOC)
MW-3	29-Aug-97	3.6	46	180	3.3	360	47	22.63
MW-3	18-Mar-98	22	500	690	39	4,200	1,400	18.65
MW-3	16-Jun-98	19	690	2,700	54	3,500	1,500	17.11
MW-3	9-Sep-98	7.4	42	11	0.7	280	620	19.11
MW-3	16-Apr-99	6.7	51	17	40	500	530	15.40
MW-3	13-Jul-99	8.2	330	23	140	270	1,700	18.80
MW-3	29-Oct-99	ND	ND	ND	ND	ND	70.2 ^A	20.33
MW-3	5-Jan-00	1.1	2.8	30	5.8	27	31	20.17
MW-3	22-May-00	3.5	83	26	57	132	460	18.58
MW-3	7-Aug-00	ND	ND	5.6	ND	ND	2.5 ^A	22.61
MW-3	8-Nov-00	ND	ND	ND	ND	ND	10.4 ^A	20.84
MW-3	19-Feb-01	ND	ND	2.1	ND	3.1	<1.0 ^A	21.62
MW-3	8-May-01	ND	ND	7.4	ND	ND	ND ^D	20.86
MW-3	27-Aug-01	2.7	< 1.25	< 1.25	2.20	4.82	< 12.5 ^A	23.58
MW-3	6-Dec-01	5.4	< 2.5	< 2.5	< 2.5	< 2.5	< 5.0 ^A	25.09
MW-3	15-Mar-02	4.4	< 2.5	< 2.5	< 2.5	< 2.5	7.00 ^A	23.76
MW-3	25-Jun-02	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50	1.72 ^A	24.96
MW-3	3-Oct-02	11	<10	<10	<10	<10	<20 ^A	26.43
MW-3	28-Jan-03	4.0	<10	<10	<10	11.6	<20 ^A	26.01
MW-3	28-Apr-03	4.5	<10	<10	<10	<10	<20 ^A	25.34
MW-3	7-Jul-03	6.4	<10	<10	<10	<10	<20 ^A	25.82
MW-4	25-Feb-03	<0.05	<0.50	<0.50	<0.50	4.75	< 1.0 ^A	26.52
MW-4	28-Apr-03	<0.05	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	26.09
MW-4	7-Jul-03	<0.05	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	26.62
MW-4	17-Oct-03	<0.050	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	28.84
MW-4	16-Jan-04	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50 ^A	29.11
MW-4	4-Apr-04	<0.050	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	28.16
MW-4	12-Jul-04	<0.050	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	29.93
MW-4	18-Oct-04	<0.050	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	31.50
MW-4	3-Jan-05	0.34	<0.50	<0.50	<0.50	<0.50	< 1.0 ^A	31.87
MW-4	10-May-05	0.85	<0.50	<0.50	1.10	6.07	< 1.0 ^A	30.31
MW-4	26-Jul-05	0.31	<0.50	<0.50	0.53	2.07	< 1.0 ^A	31.00
MW-4	12-Oct-05	4.7	<2.5	5.25	642	127	< 5.0 ^A	32.45



Table 2. Groundwater Analytical Results

100 Brown Street
Sebastopol, California

Well Number	Sampling Date	TPH as Gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Depth to Water (Feet TOC)
SP-1	27-May-04	0.38	<0.50	<0.50	<0.50	<0.50	<1.0 ^A	29.50
SP-1	12-Jul-04	0.68	<0.50	<0.50	<0.50	<0.50	<1.0 ^A	30.09
SP-1	18-Oct-04	0.48	<0.50	<0.50	<0.50	<0.50	<1.0 ^A	31.75
SP-1	4-Jan-05	1.7	<0.50	6.09	122	67.9	<1.0 ^A	32.11
B-3	4-Jan-05	0.10	<0.50	<0.50	<0.50	<0.50	69.7 ^A	5.33
B-3	26-Jul-05	0.31	9.94	<1.0	<1.0	<1.0	161 ^E	4.63
B-5	3-Jan-05	20	344	635	200	1,130	5,870 ^A	4.69
B-5	10-May-05	32	1,070	550	703	3,340	12,600 ^D	4.12
B-5	26-Jul-05	49	1,380	2,050	829	4,700	12,900 ^F	4.71
B-5	15-Sep-05	2.9	9.43	5.54	5.69	61.8	1,130	G
B-6	3-Jan-05	78	807	15,700	7,000	38,500	<250 ^A	4.91
B-6	10-May-05	120	312	4,775	6,400	34,400	<250 ^A	4.62
B-6	26-Jul-05	110	339	3,430	5,640	33,000	271 ^A	5.66
B-6	15-Sep-05	68	129	1,860	1,920	13,000	204	G
B-6	12-Oct-05	73	418	3,870	5,920	36,300	255 ^A	6.98
B-7	4-Jan-05	1.0	1.37	22.3	14.1	81.5	27 ^A	5.30
B-7	10-May-05	0.23	<0.50	<0.50	0.67	3.34	70.2 ^A	2.03
B-7	26-Jul-05	0.30	1.46	<1.0	<1.0	3.00	148 ^A	4.12
B-7	12-Oct-05	1.7	1.41	<1.0	4.91	10.8	93.4 ^A	5.50
B-8	4-Jan-05	38	419	8,930	944	13,400	<250 ^A	3.89
B-8	10-May-05	13	176	2,160	782	4,030	<250 ^A	2.44
B-8	26-Jul-05	<1.0	14.5	64.0	69.4	297	<20 ^A	4.21

ND= Not detected at the laboratory reporting limit.

NR= Analysis not requested.

NS= Not sampled.

mg/l = milligrams per liter

µg/l = micrograms per liter

TOC = Below top of Casing (Monitoring Well).

< 1.25 = analyte is less than the method reporting limit specified.

^A = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B.

Only those compounds detected are listed.

^B = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B. Tert-butyl alcohol reported at 227 µg/l and 1,2-dichloroethane reported at 13.4 µg/l.

^C = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B. Tert-butyl alcohol reported at 300 µg/l.

^D = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B. 1,2-dichloroethane reported at 98.4 µg/l.

^E = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B. 1,2-dichloroethane reported at 2.85 µg/l.

^F = Oxygenates and lead scavengers analyzed by EPA Test Method 8260B. 1,2-dichloroethane reported at 123 µg/l.

^G = Sample collected from remediation piping immediatley prior to system shut down.





Table 3. Well Construction Details
100 Brown Street
Sebastopol, California

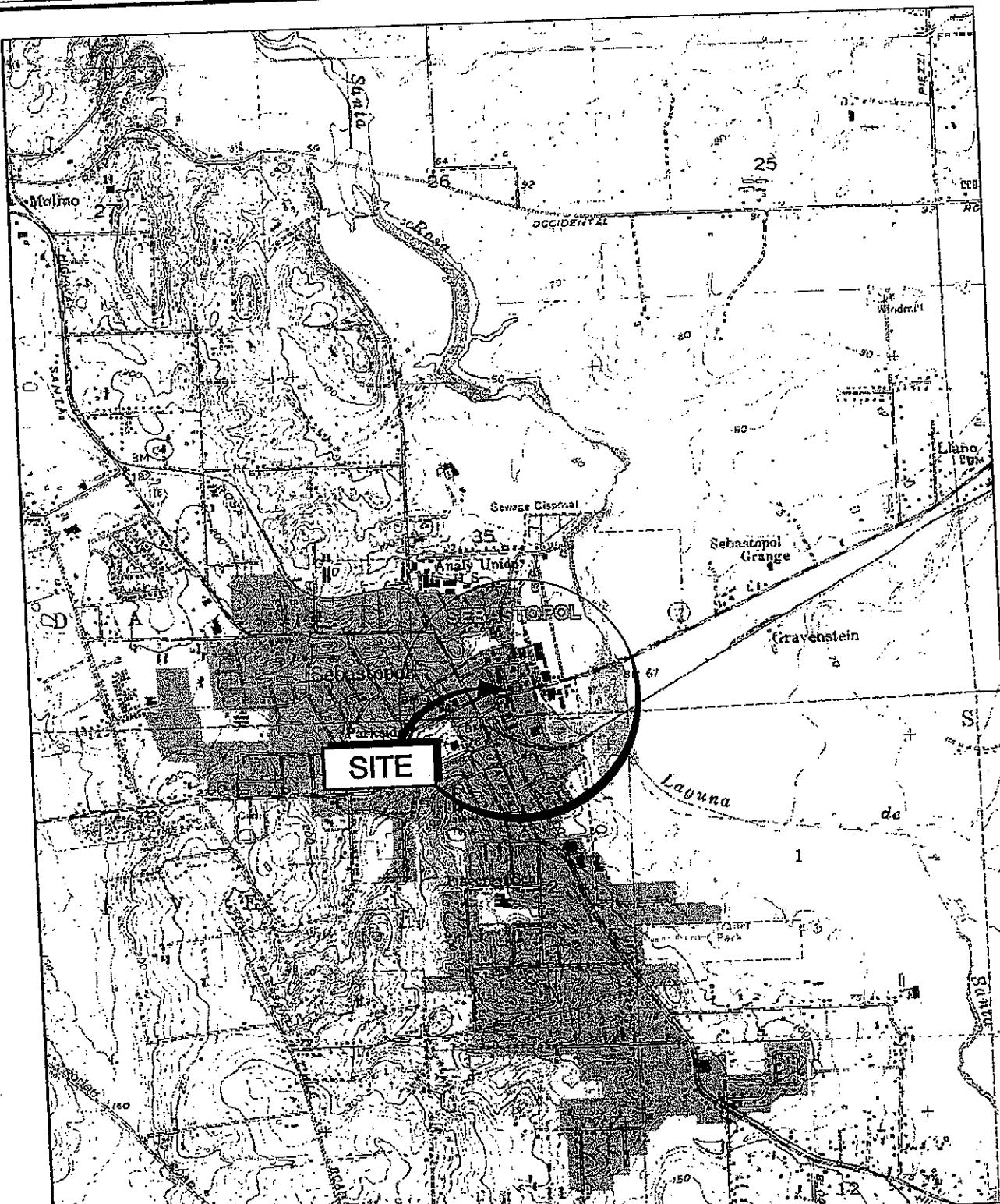
Well Number	Date Installed	Installed By	Borehole Diameter (inches)	Total Borehole Depth (feet)	Screened Interval (feet)	Total Well Depth (feet)	Casing Diameter (inches)	Screen Slot Size (inches)	PVC Casing Elevation * (MSL)	Existing or Date Abandoned
MW-1	04-Aug-94	BAI	8	25	10 to 25	25	2	0.020	77.27	Existing
MW-2	26-Aug-97	BAI	8	30	15 to 30	30	2	0.020	76.05	Existing
MW-3	27-Aug-97	BAI	8	30	13 to 30	30	2	0.020	75.94	Existing
MW-4	19-Feb-03	BAI	8	38	28 to 38	38	2	0.020	76.67	Existing
B-3	27-Aug-97	BAI	4	10	4 to 9	9	2	0.020	NS	Existing
B-4	26-Aug-97	BAI	4	10	4 to 9	9	2	0.020	NS	Existing
B-5	27-Aug-97	BAI	4	10	4 to 9	9	2	0.020	NS	Existing
B-6	26-Aug-97	BAI	4	10	4 to 9	9	2	0.020	NS	Existing
B-7	07-Sep-00	BAI	6	10.5	4 to 9	9	4	0.040	NS	Existing
B-8	07-Sep-00	BAI	6	10.5	4 to 9	9	4	0.040	NS	Existing
SP-1	07-Sep-00	BAI	6	35	32 to 35	35	1	0.010	NS	Existing

* Survey performed by Phelps and Associates on November 8, 2000 and April 9, 2003.

NS = Not surveyed

PLATES





J.D. Topo Quads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Date: USGS 700 ft Scale: 1:24,000 Detail: 13-0 Datum: WGS84



Brunsing Associates,
Inc.

Job No.: 383

Appr.: *OMR*

Date: 4/18/01

SITE VICINITY MAP

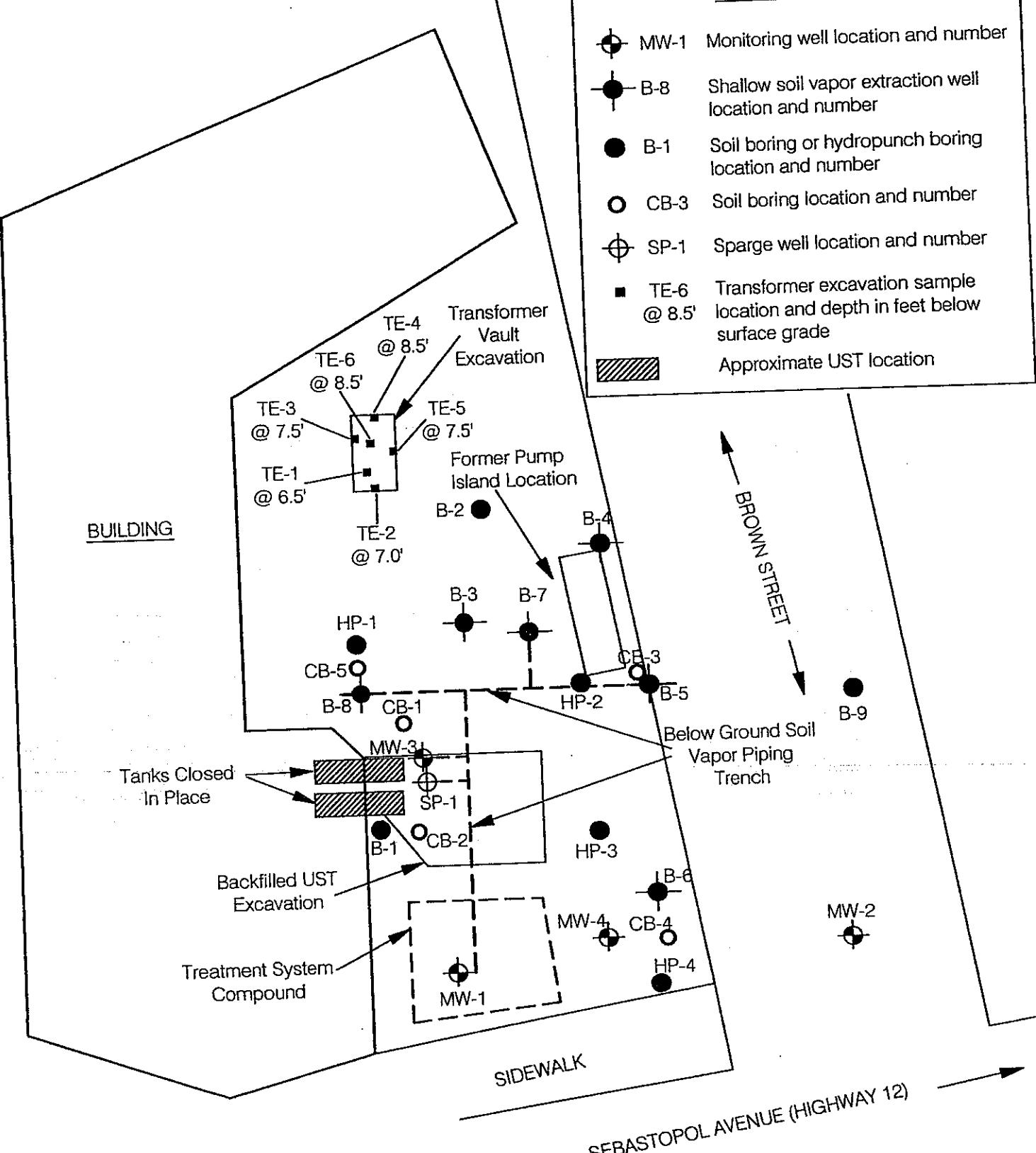
100 Brown Street
Sebastopol, California

PLATE

1

LEGEND

- MW-1 Monitoring well location and number
- B-8 Shallow soil vapor extraction well location and number
- B-1 Soil boring or hydropunch boring location and number
- CB-3 Soil boring location and number
- ⊕ SP-1 Sparge well location and number
- TE-6 Transformer excavation sample location and depth in feet below surface grade
- ▨ Approximate UST location



APPROXIMATE SCALE (FEET)

0 7.5 15 30

Reference: Ray Carlson and
Associates, 4/11/03



Brsuning Associates, Inc.
5468 Skylane Blvd., Suite 201
Santa Rosa, California 95403
Tel: (707) 838-3027

Job No.: 383

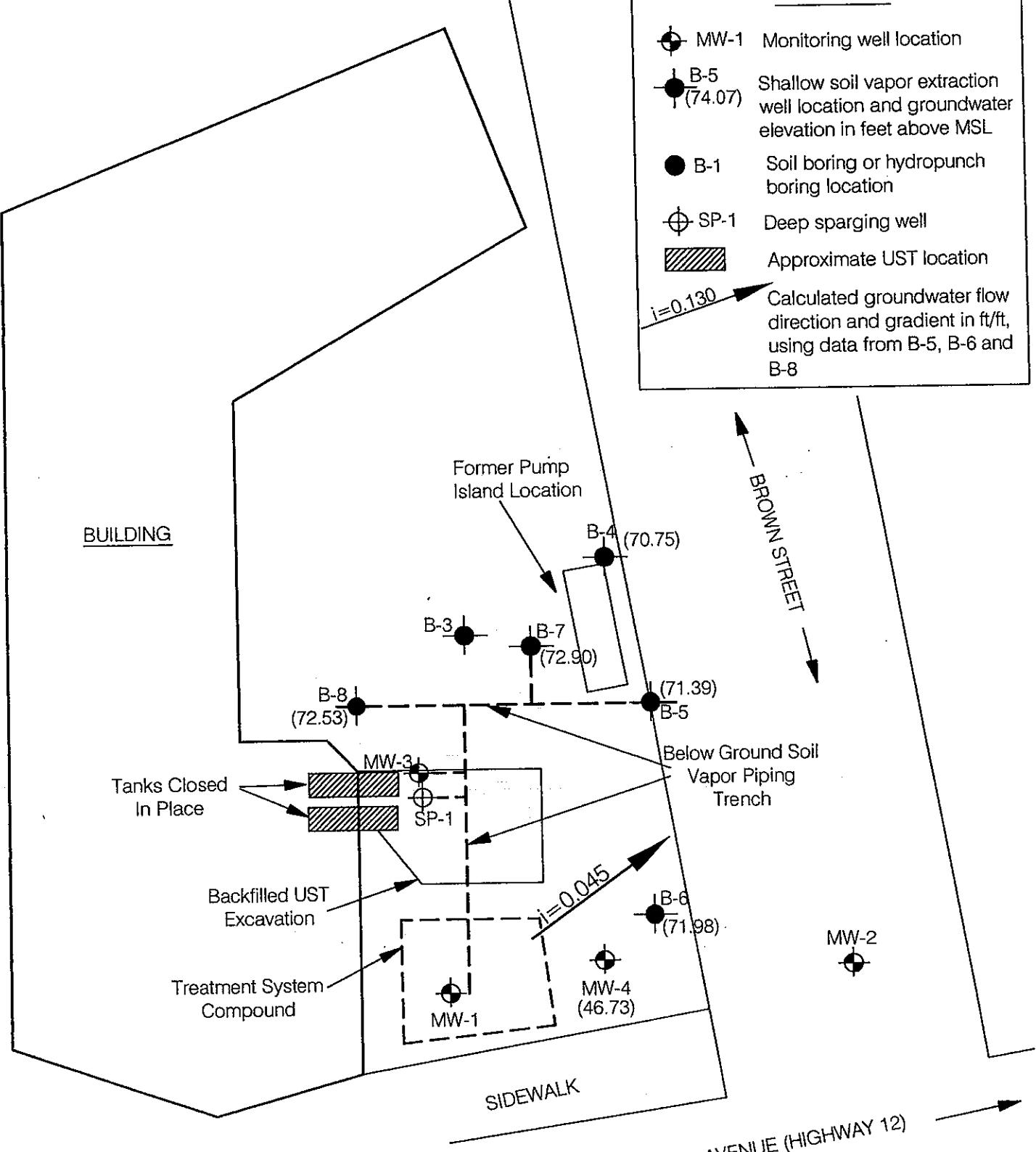
Appr.: *[Signature]*

Date: 9/7/05

SITE MAP
100 Brown Street
Sebastopol, California

PLATE

2



APPROXIMATE SCALE (FEET)

Reference: Ray Carlson and
Associates, 4/11/03



Brsning Associates, Inc.
5468 Skylane Blvd., Suite 201
Santa Rosa, California 95403
Tel: (707) 838-3027

Job No.: 383

Appr.:

Date: 1/26/06

GROUNDWATER ELEVATION MAP

OCTOBER 12, 2005

100 Brown Street
Sebastopol, California

PLATE

3

APPENDIX A

Monitoring Well Sampling Protocol and Field Reports



Monitoring Well Sampling Protocol

Monitoring Wells

Prior to purging a monitoring well, groundwater levels are measured with a Solinst electric depth measurement device, or an interface probe, in all wells that are to be measured. At sites where petroleum hydrocarbons are possible contaminants, the well is checked for floating product using a clear bailer, a steel tape with water/oil paste, or an interface probe, during the initial sampling round. If floating product is measured during the initial sampling round or noted during subsequent sampling rounds, floating product measurements are continued.

After the water level and floating product measurements are complete, the monitoring well is purged until a minimum of three casing volumes of water are removed, water is relatively clear of sediment, and pH, conductivity, and temperature measurements of the water become relatively stable. If the well is purged dry, groundwater samples are collected after the water level in the well recovers to at least 80 percent of the original water column measured in the well prior to sampling, or following a maximum recovery period of two hours. The well is purged using a factory-sealed, disposable, polyethylene bailer, a four-inch diameter submersible Grundfos pump, a two-inch diameter ES-40 purge pump, or a peristaltic pump. The purge water is stored on-site in clean, 55-gallon drums.

A groundwater sample is collected from each monitoring well following re-equilibration of the well after purging. The groundwater sample is collected using a factory-sealed disposable, polyethylene bailer with a sampling port, or a factory-sealed Teflon bailer. A factory provided attachment designed for use with volatile organic compounds (VOCs) is attached to the polyethylene bailer sampling port when collecting samples to be analyzed for VOCs. The groundwater sample is transferred from the bailer into sample container(s) that are obtained directly from the analytical laboratory.

The sample container(s) is labeled with a self-adhesive tag. The following information is included on the tag:

- Project number
- Sample number
- Date and time sample is collected
- Initials of sample collector(s).

Individual log sheets are maintained throughout the sampling operations. The following information is recorded:



- Sample number
- Date and time well sampled and purged
- Sampling location
- Types of sampling equipment used
- Name of sampler(s)
- Volume of water purged.

Following collection of the groundwater sample, the sample is immediately stored on blue ice in an appropriate container. A chain-of-custody form is completed with the following information:

- Date the sample was collected
- Sample number and the number of containers
- Analyses required
- Remarks including preservatives added and any special conditions.

The original copy of the chain-of-custody form accompanies the sample containers to a California-certified laboratory. A copy is retained by BAI and placed in company files.

Sampling equipment including thermometers, pH electrodes, and conductivity probes are cleaned both before and after their use at the site. The following cleaning procedures are used:

- Scrub with a potable water and detergent solution or other solutions deemed appropriate using a hard bristle brush
- Rinse with potable water
- Double-rinse with organic-free or deionized water
- Package and seal equipment in plastic bags or other appropriate containers to prevent contact with solvents, dust, or other contaminants.

In addition, the pumps are cleaned by pumping a potable water and detergent solution and deionized water through the system. Cleaning solutions are contained on-site in clean 55-gallon drums.

Domestic and Irrigation Wells

Groundwater samples collected from domestic or irrigation wells are collected from the spigot that is the closest to the well. Prior to collecting the sample, the spigot is allowed to flow for at least 5 minutes to purge the well. The sample is then collected directly into laboratory-supplied containers, sealed, labeled, and stored on blue ice in an appropriate container, as described above. A chain-of-custody form is completed and submitted with the samples to the analytical laboratory.



BRUNTING ASSOCIATES, INC.

FILE COPY

FIELD REPORT

PROJECT NUMBER: 383.030	PROJECT NAME: W144T T-1e
TECHNICIAN: Sean	DESCRIPTION: Sample
DATE: 9/15/04	VEHICLE USED: 2003 C1400
TOTAL MILEAGE: 50	
TIME	DESCRIPTION OF WORK:
910	Arrived on Site - System down - #1, 40% full Well samples taken - B-S + 6 System up, Power off
1015	Departed Site - System off

UST Yes
 Fund Site: No

FIELD REPORT

PAGE ____ OF ____

JOB NO: 383 PROJECT: Wyatt Tire - 100 Brown St. Sebastopol, CA

INITIAL: *ejc* SUBJECT: CW Sampling

DATE: 10/12/02 PROJECT PHASE NUMBER: 04

VEHICLE USED: 2003 Chevy

Total Time: 5:5

End. Mileage: 44252

Beg. Mileage: 44232

TOTAL MILEAGE: 30

TIME	DESCRIPTION OF WORK AND CONVERSATION RECORD
9:25	Arrived on site. located wells - MW-4, 1+2 - B-4-5-6-7-8. wells - SP-1, B-3 + MW-3 covered with material opened all wells and performed a rounds of DTW samples taken from wells - B6 - B7 - MW-4 B4 - B5 - B8 - went dry, no sample MW 1 - MW-2 dry, no water MW-3 - SP-1 - B-3, covered, NOT Found stored Purge water on site. closed wells
	Decon'd Equipment Completed notes + loaded truck
10:00	Departed site
	DRUM COUNT: Water = _____ Devlpmnt Water = _____ Soil = _____ Decon Water = _____



WATER LEVELS

SHEET _____ OF _____

PROJECT: 100 Brown Street, Sebastopol, California

PROJECT NUMBER: 383

INSTRUMENT TYPE: ET (WLP)

INITIALS: *EJC*

DATE: 10/12/05

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire - 100 Brown Street, Sebastopol, CA

PROJECT NUMBER: 383

WELL # B-4 PRECIP. IN LAST 5 DAYS: ~0 WIND ~0 DATE: 10/12/05

STARTING TIME: 1332 FINISHING TIME: 1428 INITIALS: SF

CALCULATION OF PURGE VOLUME

2" WELL DEPTH: [9.00] - D.T.W. [8.82] = H2O COLUMN: [1.00] X 0.5 = [.50] GALLONS

4" WELL DEPTH: [] - D.T.W. [] = H2O COLUMN: [] X 2.0 = [] GALLONS

THEREFORE TOTAL PURGE GALLONS EQUALS [1.00]

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
.25					Dry
.50					
1.00					

SAMPLING: SAMPLE ANALYSIS: TPH-Gas, 8260B (BTEX, petro oxy & Pb scav)

SAMPLE TIME: [] DID WELL GO DRY? [Yes]

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1428	8.64	

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire - 100 Brown Street, Sebastopol, CA

PROJECT NUMBER: 383

WELL# B-8 PRECIP. IN LAST 5 DAYS: NO WIND NO DATE: 10/12/05

STARTING TIME: 1322 FINISHING TIME: 1427

INITIALS: EG

CALCULATION OF PURGE VOLUME

2" WELL DEPTH: - D.T.W. = H2O COLUMN: X 0.5 =

4" WELL DEPTH: 800 - D.T.W. 6.32 = H2O COLUMN: 1.68 X 2.0 = 3.36

THEREFORE TOTAL PURGE GALLONS EQUALS

4.00

G
A
L
L
O
N
S

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
1326	1	7.75	528	21.1	Dark gray, organic odor, sandy
2					Dry
4					

SAMPLING:

SAMPLE ANALYSIS: TPH-Gas, 8260B (BTEX, petro oxy & Pb scav)

SAMPLE TIME:

DID WELL GO DRY?

Yes

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1427	7.12	

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire - 100 Brown Street, Sebastopol, CA

PROJECT NUMBER: 383

WELL # B-5 PRECIP. IN LAST 5 DAYS: NO WIND NO DATE: 10/12/05

STARTING TIME: 1239 FINISHING TIME: 1406

INITIALS: GL

CALCULATION OF PURGE VOLUME

2" WELL DEPTH: - D.T.W. = H₂O COLUMN: X 0.5 =

4" WELL DEPTH: - D.T.W. = H₂O COLUMN: X 2.0 =

THEREFORE TOTAL PURGE GALLONS EQUALS

GALLONS

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
1243	.25	7.40	296	24.5	light Brown, organic odor, sandy
	.50				Dry
	1.00				

SAMPLING: SAMPLE ANALYSIS: TPH-Gas, 8260B (BTEX, petro oxy & Pb scav)

SAMPLE TIME: DID WELL GO DRY?

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1406	7.81	

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire

PROJECT NUMBER: 383.024

WELL # MW-4 PRECIP. IN LAST 5 DAYS: NO WIND NO

DATE: 10/12/05

STARTING TIME: 1132 FINISHING TIME: 1205

INITIALS: EG

CALCULATION OF PURGE VOLUME

2" WELL DEPTH: 38.00 - D.T.W. 33.00 = H₂O COLUMN: 5.00 X 0.5 = 2.50

4" WELL DEPTH: _____ - D.T.W. _____ = H₂O COLUMN: _____ X 2.0 = _____

THEREFORE TOTAL PURGE GALLONS EQUALS

3

G
A
L
L
O
N
S

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
1138	1	7.59	536	21.6	Light Brown, no odor, sandy
1144	2	7.83	508	20.2	Dark Brown, no odor, sandy
1148	3	7.37	500	20.0	Dark Brown, no odor, sandy

SAMPLING: SAMPLE ANALYSIS: TPH-G EPA-8260

SAMPLE TIME: 1152 DID WELL GO DRY? No

WATER LEVELS:		NOTES:
TIME	D.T.W.	
12:05	32.55	

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire - 100 Brown Street, Sebastopol, CA

PROJECT NUMBER: 383

WELL # B-6 PRECIP. IN LAST 5 DAYS: NO WIND NO

DATE: 10/12/05

STARTING TIME: 1215 FINISHING TIME: 1354

INITIALS: SC

CALCULATION OF PURGE VOLUME

2" WELL	DEPTH: 9.00	- D.T.W.	7.00	= H2O COLUMN: 2.00	X 0.5 = 1.00	GALLONS
---------	-------------	----------	------	--------------------	--------------	---------

4" WELL	DEPTH: []	- D.T.W.	[]	= H2O COLUMN: []	X 2.0 = []	GALLONS
---------	------------	----------	-----	-------------------	-------------	---------

THEREFORE TOTAL PURGE GALLONS EQUALS

1.00

GALLONS

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
1215	.25	7.46	388	24.0	light Brown, organic odor, sandy
	.50				Dry
	1.00				

SAMPLING:

SAMPLE ANALYSIS: TPH-Gas, 8260B (BTEX, petro oxy & Pb scav)

SAMPLE TIME:

1351

DID WELL GO DRY?

Yes

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1354	7.78	

WELL SAMPLING

SHEET OF

PROJECT: Wyatt Tire - 100 Brown Street, Sebastopol, CA

PROJECT NUMBER: 383

WELL # B-7 PRECIP. IN LAST 5 DAYS: NO WIND NO

DATE: 10/12/05

STARTING TIME: 1253 FINISHING TIME: 1315

INITIALS: eg

CALCULATION OF PURGE VOLUME

2" WELL DEPTH: [] - D.T.W. [] = H₂O COLUMN: [] X 0.5 = [] GALLONS

4" WELL DEPTH: [8.00] - D.T.W. [5.50] = H₂O COLUMN: [2.50] X 2.0 = [5.00] GALLONS

THEREFORE TOTAL PURGE GALLONS EQUALS [5.00] GALLONS

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
1258	1	7.47	448	23.3	cloudy, no odor
1258	3	7.38	473	22.3	light gray, no odor
1302	5	7.34	472	21.6	light gray, no odor

SAMPLING: SAMPLE ANALYSIS: TPH-Gas, 8260B (BTEX, petro oxy & Pb scav) []

SAMPLE TIME: 1305 DID WELL GO DRY? NO

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1315	7.59	

APPENDIX B

Analytical Laboratory Reports



Laboratory Report Project Overview

EDF 1.2a

Laboratory:
Bace Analytical, Windsor, CA
Lab Report Number:
4643
Project Name:
100 BROWN STREET
Work Order Number:
383.030
Control Sheet Number:
NA

Bace Analytical, Windsor, CA

4643
100 BROWN STREET
383.030
NA

FILE COPY

Case Narrative

Bace Analytical, Windsor, CA

Report Date: 10/21/2005
Report Number: 4643

Project: 100 BROWN STREET
Order #: 383.030

Please be advised that the volatile aromatics (BTEX) and MTBE analysis required for this sample batch was performed by means of EPA 8260B (GC/MS) rather than by EPA 8021 as specified on the chain of custody. The reporting limits for the two methods are equivalent. There will be no additional fee assessed for the GC/MS analysis.

Approved by:



Date:

10/21/05

Report Summary

Labreport	Sampid	Labsampid	Mtrix	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotct	Run Sub
4643	B-5	4643-1	W	CS	8260FAB	SW5030B	09/15/200	09/22/200	09/22/200	20050922B	31
4643	B-5	4643-1	W	CS	8260TPH	SW5030B	5	5	5		
4643	B-6	4643-2	W	CS	8260FAB	SW5030B	09/15/200	09/22/200	09/22/200	20050922B	31
4643	B-6	4643-2	W	CS	8260TPH	SW5030B	5	5	5		
4643	B-6	4649-2	W	NC	8260FAB	SW5030B	/ /	09/15/200	09/22/200	09/22/200	20050922B
		4649-6	W	NC	8260TPH	SW5030B	/ /	5	5		
		4643MB	W	LB1	8260FAB	SW5030B	/ /	09/19/200	09/19/200	09/19/200	20050922B
		4643MB	W	LB1	8260TPH	SW5030B	/ /	5	5		
		4643MS	W	MS1	8260FAB	SW5030B	/ /	09/22/200	09/22/200	09/22/200	20050922B
		4643MS	W	MS1	8260TPH	SW5030B	/ /	5	5		
		4643SD	W	SD1	8260FAB	SW5030B	/ /	09/22/200	09/22/200	09/22/200	20050922B
		4643SD	W	SD1	8260TPH	SW5030B	/ /	5	5		
							5	5	5		

Project Name:	100 BROWN STREET	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	383.030	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	B-5	Lab Samp ID:	4643-1			
Descr/Location:	B-5	Rec'd Date:	09/15/2005			
Sample Date:	09/15/2005	Prep Date:	09/22/2005			
Sample Time:	0940	Analysis Date:	09/22/2005			
Matrix:	Water	QC Batch:	20050922B			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	3.8	10.	PQL	1130.	UG/L	10
Benzene	2.7	5.0	PQL	9.43	UG/L	10
Toluene	2.5	5.0	PQL	5.54	UG/L	10
Ethylbenzene	2.5	5.0	PQL	5.69	UG/L	10
Xylenes	2.5	5.0	PQL	61.8	UG/L	10
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-118	SLSA	106%		1
Toluene-d8		88-110	SLSA	105%		1
Dibromofluoromethane		86-115	SLSA	105%		1

Approved by:



Date: 10/21/05

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 2

Project Name:	100 BROWN STREET	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	383.030	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	B-6	Lab Samp ID:	4643-2			
Descr/Location:	B-6	Rec'd Date:	09/15/2005			
Sample Date:	09/15/2005	Prep Date:	09/22/2005			
Sample Time:	0955	Analysis Date:	09/22/2005			
Matrix:	Water	QC Batch:	20050922B			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	38.	100.	PQL	204.	UG/L	100
Benzene	27.	50.	PQL	129.	UG/L	100
Toluene	25.	50.	PQL	1860.	UG/L	100
Ethylbenzene	25.	50.	PQL	1920.	UG/L	100
Xylenes	25.	50.	PQL	13000.	UG/L	100
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-118	SLSA		96%	1
Toluene-d8		88-110	SLSA		99%	1
Dibromofluoromethane		86-115	SLSA		94%	1

Approved by:

*Walter H. Rott*Date: 10/21/05

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 3

Project Name:	100 BROWN STREET	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	383.030	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	B-5	Lab Samp ID:	4643-1			
Descr/Location:	B-5	Rec'd Date:	09/15/2005			
Sample Date:	09/15/2005	Prep Date:	09/22/2005			
Sample Time:	0940	Analysis Date:	09/22/2005			
Matrix:	Water	QC Batch:	20050922B			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.80	1.0	PQL	2.9	MG/L	20
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-115	SLSA		106%		1

Approved by:

*William H. Potts*Date: 10/21/05

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 4

Project Name:	100 BROWN STREET	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS		
Project No:	383.030	Method:	8260TPH		
		Prep Meth:	SW5030B		
Field ID:	B-6	Lab Samp ID:	4643-2		
Descr/Location:	B-6	Rec'd Date:	09/15/2005		
Sample Date:	09/15/2005	Prep Date:	09/22/2005		
Sample Time:	0955	Analysis Date:	09/22/2005		
Matrix:	Water	QC Batch:	20050922B		
Basis:	Not Filtered	Notes:			
Analyte	Det Limit	Rep Limit	Note	Result	Units
Gasoline Range Organics (C5-C12)	4.0	5.0	PQL	68.	MG/L
SURROGATE AND INTERNAL STANDARD RECOVERIES:				96%	1
4-Bromofluorobenzene	86-115	SLSA			

Approved by: Wesley H. Pote Date: 10/21/05

QA/QC Report
Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 5

QC Batch:	20050922B	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Matrix:	Water	Method:	8260FAB			
Lab Samp ID:	4643MB	Prep Meth:	SW5030B			
Analysis Date:	09/22/2005	Prep Date:	09/22/2005			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	ND	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-118	SLSA		113%		1
Toluene-d8	88-110	SLSA		106%		1
Dibromofluoromethane	86-115	SLSA		111%		1

QA/QC Report
Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 6

QC Batch:	20050922B	Analysis:	Total Petroleum Hydrocarbons (TPH) by				
Matrix:	Water	Method:	8260TPH				
Lab Samp ID:	4643MB	Prep Meth:	SW5030B				
Analysis Date:	09/22/2005	Prep Date:	09/22/2005				
Basis:	Not Filtered	Notes:					
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil	
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1	
SURROGATE AND INTERNAL STANDARD RECOVERIES:				113%			1
4-Bromofluorobenzene	86-115	SLSA					

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 7

QC Batch: 20050922B
 Matrix: Water
 Lab Samp ID: 4643MS
 Basis: Not Filtered

Project Name: Lab Generated or Non COE Sample
 Project No.: Lab Generated or Non COE Sample
 Field ID: Lab Generated or Non COE Sample
 Lab Ref ID: 4649-2

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result	Units	% Recoveries			Acceptance Criteria	RPD
		MS	DMS				MS	DMS	RPD		
Benzene	8260FAB	10.0	10.0	ND	10.0	9.45	UG/L	100	94.5	5.7	20MSP
Ethylbenzene	8260FAB	10.0	10.0	ND	9.88	9.39	UG/L	98.8	93.9	5.1	20MSP
Methyl-tert-butyl ether (MTBE)	8260FAB	10.0	10.0	ND	8.10	8.65	UG/L	81.0	86.5	6.6	20MSP
Toluene	8260FAB	10.0	10.0	ND	9.54	10.4	UG/L	95.4	104	8.6	20MSP
Xylenes	8260FAB	30.0	30.0	ND	28.7	28.4	UG/L	95.7	94.7	1.1	20MSP
4-Bromofluorobenzene	8260FAB	100.	100.	97.	97.	106.	PERCENT	97.0	106	8.9	20SLSP
Dibromofluoromethane	8260FAB	100.	100.	99.	95.	106.	PERCENT	95.0	106	11	20SLSP
Toluene-d8	8260FAB	100.	100.	99.	99.	103.	PERCENT	99.0	103	4.0	20SLSP

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary
Bace Analytical, Windsor, CA

Lab Report No.: 4643 Date: 10/21/2005

Page: 8

QC Batch:	20050922B	Project Name: Lab Generated or Non COE Sample			
Matrix:	Water	Project No.: Lab Generated or Non COE Sample			
Lab Samp ID:	4643MS	Field ID: Lab Generated or Non COE Sample			
Basis:	Not Filtered	Lab Ref ID: 4649-6			

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result		Units	% Recoveries		Acceptance Criteria	RPD
		MS	DMS		MS	DMS		MS	RPD		
Gasoline Range Organics (C5-C12)	8260TPH	0.50	0.50	ND	0.57	0.53	MG/L	114	106	7.3	130-70 MSA 20MSP
4-Bromofluorobenzene	8260TPH	100.	100.	99.	99.	97.	PERCENT	99.0	97.0	2.0	115-96 SL SA 20SLSP

Chain-of-Custody Form

Laboratory Report Project Overview

EDF12a

Laboratory: Bace Analytical, Windsor, CA
Lab Report Number: 4668
Project Name: 100 BROWN ST.
Work Order Number: 383
Control Sheet Number: NA

Bace Analytical, Windsor, CA

4668

100 BROWN ST.

383

NA

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anicode	Exicode	Logdate	Extdate	Anadate	Lablotct	Run Sub
4668	B-6	4668-1	W	CS	8260FAB	SW5030B	10/12/200	10/19/200	20051019	9	
4668	B-6	4668-1	W	CS	8260TPH	SW5030B	5	5	5	5	
4668	B-7	4668-2	W	CS	8260FAB	SW5030B	10/12/200	10/19/200	20051019	9	
4668	B-7	4668-2	W	CS	8260TPH	SW5030B	5	5	5	5	
4668	MW-4	4668-3	W	CS	8260FAB	SW5030B	10/12/200	10/19/200	20051019	10	
4668	MW-4	4668-3	W	CS	8260TPH	SW5030B	5	5	5	5	
		4672-1	W	NC	8260FAB	SW5030B	10/12/200	10/19/200	20051019	11	
		4672-2	W	NC	8260TPH	SW5030B	5	5	5	5	
		4668MB	W	LB1	8260FAB	SW5030B	5	5	5	5	
		4668MB	W	LB1	8260TPH	SW5030B	10/19/200	10/19/200	20051019	12	
		4668MS	W	MS1	8260FAB	SW5030B	5	5	5	5	
		4668MS	W	MS1	8260TPH	SW5030B	10/19/200	10/19/200	20051019	13	
		4668SD	W	SD1	8260FAB	SW5030B	5	5	5	5	
		4668SD	W	SD1	8260TPH	SW5030B	10/19/200	10/19/200	20051019	14	
							5	5	5	5	17

Bace Analytical, Windsor, CA

Page: 1

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	383	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	B-6	Lab Samp ID:	4668-1			
Descr/Location:	B-6	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1357	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	95.	250.	PQL	255.	UG/L	250
Ethyl tert-butyl ether (ETBE)	75.	250.	PQL	ND	UG/L	250
tert-Amyl methyl ether (TAME)	65.	250.	PQL	ND	UG/L	250
Di-isopropyl ether (DIPE)	93.	250.	PQL	ND	UG/L	250
tert-Butyl alcohol (TBA)	600.	3000.	PQL	ND	UG/L	250
1,2-Dichloroethane	75.	130.	PQL	ND	UG/L	250
1,2-Dibromoethane	75.	130.	PQL	ND	UG/L	250
Benzene	68.	130.	PQL	418.	UG/L	250
Toluene	63.	130.	PQL	3870.	UG/L	250
Ethylbenzene	63.	130.	PQL	5920.	UG/L	250
Xylenes	63.	130.	PQL	36300.	UG/L	250
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-118	SLSA	97%		1
Toluene-d8		88-110	SLSA	101%		1
Dibromofluoromethane		86-115	SLSA	98%		1

Approved by:

Date: 11/18/05

Bace Analytical, Windsor, CA

Page: 2

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis: VOCs by GC/MS Fuel Additives Plus BTEX Method: 8260FAB Prep Meth: SW5030B				
Project No:	383					
Field ID:	B-7	Lab Samp ID:	4668-2			
Descr/Location:	B-7	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1305	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.76	2.0	PQL	93.4	UG/L	2
Ethyl tert-butyl ether (ETBE)	0.60	2.0	PQL	ND	UG/L	2
tert-Amyl methyl ether (TAME)	0.52	2.0	PQL	ND	UG/L	2
Di-isopropyl ether (DIPE)	0.74	2.0	PQL	ND	UG/L	2
tert-Butyl alcohol (TBA)	4.8	20.	PQL	ND	UG/L	2
1,2-Dichloroethane	0.60	1.0	PQL	ND	UG/L	2
1,2-Dibromoethane	0.60	1.0	PQL	1.41	UG/L	2
Benzene	0.54	1.0	PQL	ND	UG/L	2
Toluene	0.50	1.0	PQL	4.91	UG/L	2
Ethylbenzene	0.50	1.0	PQL	10.8	UG/L	2
Xylenes	0.50	1.0	PQL			
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-118	SLSA	97%		1
Toluene-d8		88-110	SLSA	101%		1
Dibromofluoromethane		86-115	SLSA	99%		1

Approved by:



Date: 11/18/05

Bace Analytical, Windsor, CA

Page: 3

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	383	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	MW-4	Lab Samp ID:	4668-3			
Descr/Location:	MW-4	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1152	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	1.9	5.0	PQL	ND	UG/L	5
Ethyl tert-butyl ether (ETBE)	1.5	5.0	PQL	ND	UG/L	5
tert-Amyl methyl ether (TAME)	1.3	5.0	PQL	ND	UG/L	5
Di-isopropyl ether (DiPE)	1.9	5.0	PQL	ND	UG/L	5
tert-Butyl alcohol (TBA)	12.	50.	PQL	ND	UG/L	5
1,2-Dichloroethane	1.5	2.5	PQL	ND	UG/L	5
1,2-Dibromoethane	1.5	2.5	PQL	ND	UG/L	5
Benzene	1.4	2.5	PQL	ND	UG/L	5
Toluene	1.3	2.5	PQL	5.25	UG/L	5
Ethylbenzene	1.3	2.5	PQL	642	UG/L	5
Xylenes	1.3	2.5	PQL	127.	UG/L	5
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-118	SLSA	92%		1
Toluene-d8		88-110	SLSA	102%		1
Dibromofluoromethane		86-115	SLSA	95%		1

Approved by:

William H. Petty

Date:

11/18/05

Bace Analytical, Windsor, CA

Page: 4

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	383	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	B-6	Lab Samp ID:	4668-1			
Descr/Location:	B-6	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1357	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	10.	13.	PQL	73.	MG/L	250
SURROGATE AND INTERNAL STANDARD RECOVERIES:						1
4-Bromofluorobenzene	86-115	SLSA		97%		

Approved by:

*Wesley R. Potts*Date: 11/18/05

Bace Analytical, Windsor, CA

Page: 5

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	383	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	B-7	Lab Samp ID:	4668-2			
Descr/Location:	B-7	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1305	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.08	0.10	PQL	1.7	MG/L	2
SURROGATE AND INTERNAL STANDARD RECOVERIES:						1
4-Bromofluorobenzene	86-115	SLSA		97%		

Approved by:

*Wesley H. Roth*Date: 11/18/05

Bace Analytical, Windsor, CA

Page: 6

Lab Report No.: 4668 Date: 11/18/2005

Project Name:	100 BROWN ST.	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	383	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	MW-4	Lab Samp ID:	4668-3			
Descr/Location:	MW-4	Rec'd Date:	10/12/2005			
Sample Date:	10/12/2005	Prep Date:	10/19/2005			
Sample Time:	1152	Analysis Date:	10/19/2005			
Matrix:	Water	QC Batch:	20051019			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.20	0.25	PQL	4.7	MG/L	5
SURROGATE AND INTERNAL STANDARD RECOVERIES:						1
4-Bromofluorobenzene	86-115	SLSA		92%		

Approved by:

*Wesley H. Potts*Date: 11/18/05

QA/QC Report
Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4668 Date: 11/18/2005

Page: 7

QC Batch:	20051019	Analysis: VOCs by GC/MS Fuel Additives Plus BTEX				
Matrix:	Water	Method: 8260FAB				
Lab Samp ID:	4668MB	Prep Meth: SW5030B				
Analysis Date:	10/19/2005	Prep Date: 10/19/2005				
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.30	1.0	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.26	1.0	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.37	1.0	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	2.4	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.30	0.50	PQL	ND	UG/L	1
1,2-Dibromoethane	0.30	0.50	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	ND	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-118	SLSA		102%		1
Toluene-d8	88-110	SLSA		103%		1
Dibromofluoromethane	86-115	SLSA		101%		1

QA/QC Report
Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4668 Date: 11/18/2005

Page: 8

QC Batch:	20051019	Analysis:	Total Petroleum Hydrocarbons (TPH) by
Matrix:	Water	Method:	8260TPH
Lab Samp ID:	4668MB	Prep Meth:	SW5030B
Analysis Date:	10/19/2005	Prep Date:	10/19/2005
Basis:	Not Filtered	Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-115	SLSA		102%		1

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4668 Date: 11/18/2005

QC Batch: 20051019

Matrix: Water

Lab Samp ID: 4668MS

Basis: Not Filtered

Project Name: Lab Generated or Non COE Sample
 Project No.: Lab Generated or Non COE Sample
 Field ID: Lab Generated or Non COE Sample
 Lab Ref ID: 4672-1

Page: 9

Analyte	Analysis Method	Spike Level DMS		Sample Result	Spike Result DMS	Units	% Recoveries			Acceptance Criteria	RPD
		MS	DMS				MS	DMS	RPD		
1,2-Dibromoethane	8260FAB	10.0	10.0	ND	8.67	ug/L	86.7	89.7	3.4	130-70	MSA 20MSP
1,2-Dichloroethane	8260FAB	10.0	10.0	ND	7.97	ug/L	79.7	80.7	1.2	130-70	MSA 20MSP
Benzene	8260FAB	10.0	10.0	ND	9.54	ug/L	95.4	96.6	1.3	127-76	MSA 20MSP
Di-isopropyl ether (DIPE)	8260FAB	10.0	10.0	ND	8.62	ug/L	86.2	87.7	1.7	130-70	MSA 20MSP
Ethyl tert-butyl ether (ETBE)	8260FAB	10.0	10.0	ND	8.79	ug/L	87.9	88.5	0.68	130-70	MSA 20MSP
Ethylbenzene	8260FAB	10.0	10.0	ND	10.0	ug/L	100	101	1.0	130-70	MSA 20MSP
Methyl-tert-butyl ether (MTBE)	8260FAB	10.0	10.0	ND	7.98	ug/L	79.8	81.1	1.6	130-70	MSA 20MSP
Toluene	8260FAB	10.0	10.0	ND	9.52	ug/L	95.2	94.9	0.32	125-76	MSA 20MSP
Xylenes	8260FAB	30.0	30.0	ND	28.8	ug/L	96.0	98.0	2.1	130-70	MSA 20MSP
tert-Amyl methyl ether (TAME)	8260FAB	10.0	10.0	ND	8.76	ug/L	87.6	88.0	0.46	130-70	MSA 20MSP
tert-Butyl alcohol (TBA)	8260FAB	50.0	50.0	ND	36.0	ug/L	72.0	72.4	0.55	140-60	MSA 25MSP
4-Bromofluorobenzene	8260FAB	100.	100.	96.	95.	PERCENT	96.0	95.0	1.0	118-86	SLSA 20SLSP
Dibromofluoromethane	8260FAB	100.	100.	94.	95.	PERCENT	95.0	95.0	0.00	115-86	SLSA 20SLSP
Toluene-d8	8260FAB	100.	100.	102.	101.	PERCENT	102	101	0.99	110-88	SLSA 20SLSP

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary
 Bace Analytical, Windsor, CA

Lab Report No.: 4668 Date: 11/18/2005

QC Batch: 20051019

Matrix: Water

Lab Samp ID: 4668MS

Basis: Not Filtered

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result DMS	Units	% Recoveries MS DMS RPD	Acceptance Criteria	
		MS	DMS					RPD	
Gasoline Range Organics (C5-C12)	8260TPH	0.50	0.50	ND	0.56	0.55	MG/L	112	110 1.8 130-70 MSA 20MSP
4-Bromofluorobenzene	8260TPH	100.	100.	97.	96.	97.	PERCENT	96.0	97.0 1.0 115-86 SLSA 20SLSP

Page: 10

Project Name: Lab Generated or Non COE Sample
 Project No.: Lab Generated or Non COE Sample
 Field ID: Lab Generated or Non COE Sample
 Lab Ref ID: 4672-2

Chain-of-Custody Form

Project #	Project Name	Time	Time	Analysis
353	103 Down	1152		
L.P. No.	Sampler's Signature			
Date Sampled	Sample ID	Time (24 Hour)	Sample Type	No. of Containers
10/16/05 12	B-6 B-7 Mixed	1357 1305 1152	4 4 4	X X X
X 1357 + substantially homogeneous oxides -09 kg total etc +2				
Preservation A - HCl: B - H2SO4: C - NaOH: D - HNO3: E - Ice: F - (specify)				
Results To: <u>Diarmid Dickenson</u>				
Remarks:				
Brunsing Associates, Inc.				
P.O. Box 588 5803 Skylane Blvd., Suite A Windsor, CA 95492 (707) 838-3027 (707) 838-4420 fax				
Laboratory: <u>Levner</u>		Received by: <u>SC 116</u> 10/16/05 15:21 (signed)	Received by: <u>SC 116</u> 10/16/05 15:21 (signed)	Received for Laboratory by: <u>SC 116</u> 10/16/05 15:21 (signed)
Relinquished by: <u>SC 116</u> (signed)		Date/Time	Date/Time	Date/Time
Relinquished by: <u>SC 116</u> (signed)				
Relinquished by: <u>SC 116</u> (signed)				